



## 100 Series™ Plug-In Thermal Detectors

*System Sensor 100 Series Plug-in Thermal Detectors offer superb performance and reliability in a sleek, low-profile design.*



### Features

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- Low standby current
- Compatible with 400 Series product
- Two visible LEDs “blink” in standby and provide a 360° field viewing angle
- Detector head plugs easily into base
- Built-in test switch
- Wide variety of mounting bases with built-in shorting spring

The **5151 thermal detector** meets the needs for applications where rapid response is vital and rapid temperature increases would only be caused by a fire emergency.

The detector initiates an alarm in response to both rapid rate-of-rise conditions (increases in excess of 15°F per minute) and fixed heat (135°F). This enables the heat detector to communicate an alarm to the central control panel prior to reaching its fixed set point for high rates of rise, providing a timely response to both rapid and slow temperature increases.

A full line of accessories are available for this product.

### Agency Listings

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OB3AO.AY 7270-1653:104

# 100 Series Plug-in Thermal Detector Specifications

Physical Specifications	
Height	1.64"(42 mm)
Diameter	4.0"(102 mm)
Shipping Weight	2.8 oz. (80g)
Operating Humidity Range	10 % – 93 % RH non-condensing
Application Temperature Range	32° to 100°F (0° to 38°C)
Electrical Specifications	
Operating Voltage Range	8.5 to 35VDC
Standby Current	80µA @24VDC
Thermal Detector Spacing	On smooth ceilings (as defined in NFPA 72), spacing of 50 feet (2500 sq ft) may be used. Other spacing may be used depending on ceiling height, high air movements, and other conditions or response requirements.

Adapter Base Selection Guide					
Base Model Number	Loop Type	Current Limit Resistor	Contact Type	Nominal Voltage	Current Draw on Alarm (mA)
B110LP	2-wire*	No	—	12/24VDC	10–130†
B110RLP	2-wire*	Yes	—	24VDC	10–62
B112LP	4-wire	Yes	Form A&C	24VDC	17–36
B114LP	4-wire	Yes	Form A&C + A Supervisory	120VAC	75 mA AC Max
B116LP	2-wire*	No	Form C	24VDC	20–100†
B401††	2-wire*	No	—	12/24VDC	10–130†

\* Functionality contingent on panel compatibility  
 † Must be limited by control panel  
 †† Flangeless base.

**Relay Contact Ratings:** Resistive or Inductive (60% power factor) load.

**Form A:** 2.0A at 30 VAC/DC

**Form C:** 0.6A at 110VDC, 2.0A at 30VDC ; 1.0A at 125VAC, 2.0A at 30VAC

Junction Box Selection Guide*							
Base Model Number	Single Gang	3½" Octagon	4" Octagon	4" Square	50 mm	60 mm	75 mm
B401	No	No	No	No	Yes	Yes	No
B110LP/RLP	Yes	Yes	Yes	Yes	No	No	No
B112LP/B116LP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B114LP	No	No	Yes	Yes	No	No	No

\*Box depth contingent on base and wire size. Refer to National Electrical Code or local applicable codes for appropriate recommendations.

## Ordering Information

Part No.	Description
5151	Fixed heat detector with rate-of-rise. Alarm point at 57.2°C (135°F). Must be mounted to one of the 100 Series or 400* Series Bases listed in Adapter Mounting Base Guide.
Accessories	
F110	Accessory Flange Ring for 6" Base
RA100Z	RA100Z Remote annunciator for 2 or 4 wire systems, 3 – 32V. Fits standard U.S. single-gang electrical box.
EOLR-1	End of line relay for power supervision, 12/24 VDC , 4-wire only.
M02-04-01	Detector Test Magnet
M02-09-00	Telescoping Test Magnet
XR2B	Detector removal tool. Allows installation and/or removal of detector heads from base in high-ceiling installations
XP-4	Extension pole for XR2B. Comes in three 5 ft. sections.

\*F110 Flange Ring required when using 400 Series Bases.



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